

# Chapter 1

## Definition & the impact of trauma on children

### 1. An overall theoretical framework for studying child trauma

Presenting the literature view will be based on adopting the theory of a developmental eco-systemic model. This ecological approach concerns the development of the person within his/her environment, particularly of the evolving interaction between the two. The developmental importance of ecological transitions derives from the fact that they almost inevitably produce a change in a person's role, that is, in the expectations for behavior associated with particular positions in society. The principle applies not only to the developing person but to the others in his/her world (Bronfenbrenner, 1979).

Bronfenbrenner (1979, p.13) suggests that 'the ecology of human development lies at a point of convergence among the disciplines of the biological, psychological, and social sciences as they bear on the evolution of the individual in society'. He explains that 'a micro-system is a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics' (Bronfenbrenner, 1979, p.22).

Instances of environmental change as defined here occur throughout life. Each change involves "transitions" and puts a person into a new role in terms of their relations to others, their personal identity and sense of responsibility or social role. For example, a mother when presented with her newborn infant for the first time is different to the mother returning home from the hospital with the baby; shifts in relationships occur when, later, a younger sibling arrives; then the world enlarges when he/she goes to school, is promoted, graduates, or perhaps drops out. Psychological transitions need to be managed with these social changes. Getting divorced, remarrying; changing careers; emigrating offer complex situations for this process. More universally, sickness, and coping with the unavoidable final transition of dying completes the process of environmental change (Bronfenbrenner, 1979). The eco-systemic model is concerned with making integrative relationships between the person himself and everything important around him, particularly the people in his physical and emotional life.

Thus, human development is the process through which the growing person acquires a more extended ecological environment, and becomes motivated and able to engage in activities that restructure that environment at progressively greater levels of complexity in form and content (Bronfenbrenner, 1979).

In the literature review and results, the researcher, using the eco-systemic model, will present the most important factors that influence the child when interacting with his or her environment. The relationship between the child and his family and community will be presented through holistically describing the child himself (i.e. temperament/personality traits, style of coping, national pride, the way of perception to trauma) and his relationship with family, schools, friends, relatives, neighbours, community (governmental and NGOs foundation) and culture.

The researcher thinks that only focusing on the child himself and his constant exposure to war or conflict trauma, without linking with the other factors which influence on the child and his re-action, is not enough to give an accurate or complete picture. Thus, it is important to show the child within the context of his family and community. The historical context is equally important. The Palestinian community of an older generation at present is still living with the trauma of 1948 and reminding their children of it with stories from that time. Therefore, if the researcher just focuses on the children without investigating in depth the wider ecological factors affecting their responses, it will be difficult to provide the appropriate therapeutic intervention later on.

In summary, the literature review uses the eco-systemic model in order to produce the holistic and integrated picture of the child who is exposed to trauma and the fundamental factors which could have an impact on his response.

In this chapter I will present the definitions of Post Traumatic Stress Disorders (PTSD) in both of DSM-IV and ICD-10, primary and secondary traumatic stress, and chronic traumatic experiences. In addition to the rate of PTSD, the impact of traumatic experiences on children and adolescents who live with war and violence will be examined, such as the physical effects of trauma, the psychological effects, the social effects, effects of trauma on the family and the effects of trauma on education. Finally, the impact of chronic traumatic experiences will be described.

## 1.2 Definition of Post-Traumatic Stress Disorder (PTSD)

### 1.2.1 Trauma

The word 'trauma' comes from the Greek language and means 'wound' (Webb, 2004). In the early part of the twenty-first century, trauma usually referred to almost any very distressing incident (Brewin, 2003). For 30 years or more, dictionary definitions of trauma have mentioned a 'shock' (Hornby, 1974; Ehrlich *et al.*, 1980) or a 'wound' (Wingate, 1972) that causes lasting effects and/or damage (Ehrlich *et al.*, 1980). Many people experience stress in their lives as a result of life changes, such as a loss of job, change of school or neighbourhood, family conflict, or new addition to the family (Hutchison, 2005). Although these events are stressful, they are different from PTSD.

The first rigorous investigation of childhood trauma was conducted in the wake of the Vicksburg, Mississippi tornado of December 1953 (Bloch *et al.*, 1956). One week after the disaster two child psychiatrists distributed questionnaires. They found a significant association between being severely disturbed and having been within the tornado's impact zone (Bloch *et al.*, 1956). Although most people do not live without a certain level of stress and daily hassles, serious trauma such as being in a tornado is, by its very nature, unexpected and rarer. That is to say, traumatic events are not common daily experiences in most people's lives. However, most people never experience the most serious levels of trauma in their lifetime (Resick, 2001).

Psychological trauma has been defined by the American Psychiatric Association (APA) in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R) (APA, 1987) as an occurrence which is outside the scope of everyday human experience which would be notably distressing to almost anyone. The DSM-IV (APA, 1994) provides further clarification to this definition by requiring that the individual has undergone, witnessed, or has been faced with an event that has been threatening to himself or herself or someone else (APA, 1994).

Usually, trauma means that an individual has experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or injury or a threat to the physical integrity of others. By this definition, traumatic events include exposure to war-related

violence, sexual, torture, incarceration, genocide, and the threat of personal injury and annihilation (Friedman & Jaranson, 1994).

### **1.2.2 Primary and secondary traumatic stress**

Primary traumatic stress relates to traumatic events that are experienced directly by children and include, but is not limited to, violent personal assault, being kidnapped or taken hostage, terrorist attack, school and community violence, torture, war, natural or human disasters, severe accidents, and being diagnosed with a life-threatening illness (APA.,1994). In addition, secondary traumatic stress relates to events that are indirectly experienced by children, like witnessing or hearing about traumatizing events experienced by others. Such experiences have been acknowledged to have deleterious effects on children (APA, 1994). The indirect effects of trauma have been described most frequently in the literature as secondary traumatic stress (Figley, 1983).

### **1.2.3 Post-Traumatic Stress Disorder (PTSD)**

Post-traumatic stress disorder (PTSD) as a psychiatric diagnosis was formally introduced in DSM-III in 1980 by the American Psychiatry Association (APA, 1994). In the past two decades, there has been an increased awareness of the prevalence and clinical manifestations of this disorder in children and adolescents (Eth, 2001). Early researchers focused on populations that had experienced particular violent events or displacement and had already become recipients of humanitarian relief, such as refugees from South East Asia (Breslau, 2004). PTSD has grown as a varied, descriptive terminology in the field of human reactions to high-magnitude stressors, to become a well-defined entity with a real utility (Turnbull, 1997). Furthermore, PTSD in children has been described after multiple war-related exposures, witnessing death or injury, and injuring another (Nader *et al.* 1993; Thabet & Vostanis, 1999).

Trauma entails the personal experience of drastic, horrendous, unpleasant, shocking events. Examples of traumatic experiences range from war to natural disasters. Trauma can, but does not necessarily, lead to the development of characteristic disordered symptomatology, most commonly known as PTSD, a disorder which is included in both of the widely used classification systems, DSM-IV (APA, 1994) and the International Classification of Diseases

(ICD-10; World Health Organization, 1992) as shown below in Table 1.

**Table1: DSM-IV Criteria and ICD-10 Criteria for PTSD**

DSM-IV Criteria(APA, 1994)	ICD-10 criteria (ICD-10; WHO, 1992)
<p>PTSD is a diagnostic label used to classify trauma-exposed individuals who endorse at least:</p> <ul style="list-style-type: none"> <li>(a) one trauma-related re-experiencing symptom (e.g., flashbacks)</li> <li>(b) three trauma-relevant forms of avoidant behaviour (e.g., avoidance of activities associated with the event),</li> <li>(c) two symptoms of increased arousal (e.g., sleep difficulties) that were absent before the event(s).</li> </ul> <p>These PTSD criteria are identical for adults and children, with few exceptions (APA, 1994; Brewin, 2003)</p>	<p>The tenth edition of the International Classification of Diseases (ICD-10; World Health Organization, 1992) offers a much wider description of characteristic symptoms than DSM. ICD-10 describes various stress disorders and notes the relative roles of the traumatic event and psychosocial factors. The biggest single difference lies in the emphasis placed on ‘emotional numbing’ – ICD sees that as a frequent accompaniment to PTSD but not as being necessary for the diagnosis.</p>

In addition, people who are exposed to traumatic events are at increased risk of PTSD as well as of major depression, panic disorder, generalized anxiety disorder, somatic symptoms, particularly hypertension, chronic pain syndromes, asthma, physical illnesses, and substance abuse, as compared with those who have not experienced traumatic events (Kessler *et al.*, 1995; Boscarino, 1996; Zatzick *et al.*, 1997).

Moreover, a study was gathered for 1,364 participants using the Composite International Diagnostic Interview (CIDI). The 12-month prevalence of PTSD was 3% for DSM-IV and 7% for ICD10 Diagnostic Criteria for Research (ICD10-DCR). The agreement between the two systems was fair (kappa = .50). 48% of the discrepancies between the systems were accounted for by the additional criterion requiring clinically significant distress or impairment included in DSM-IV. The authors concluded that symptoms of general numbing of responsiveness

accounted for 18% of the discrepancies (Lorna *et al.*, 1999). It seems that the diagnosis between ICD10-DCR PTSD can not be assumed to be completely similar to DSM-IV PTSD.

Both systems agree that it is the re-experiencing symptoms that are the hallmark sign of PTSD and mark it out from most other psychopathology (Yule, Williams & Joseph, 1999). However, researchers have identified several similarities to symptoms of PTSD in DSM-IV, but are not limited to: child sexual abuse (e.g., McLeer *et al.*, 1998), child physical abuse (Wolfe & McEachran, 1997), domestic violence (e.g., Astin, Ogland-Hand, Coleman, & Foy, 1995), accidental injury such as burns and motor vehicle accidents (e.g. Scotti, Beach, Northrop, Rode, & Forsyth, 1995), war-related events (e.g., Nader, Pynoos, Fairbanks, Al-Ajeel, & Al-Asfour, 1993), natural disasters (e.g., Pynoos *et al.*, 1993), and technological disasters (Smith, North, McCool, & Shea, 1990). Additionally, witnesses to severe violent events (e.g., domestic violence, suicide, homicide) tend to report increased symptomatology relative to non-witnesses (e.g., Nader, Pynoos, Fairbanks, & Frederick, 1990; Pynoos & Nader, 1990).

Researchers have also reported other predominantly child-specific responses to potentially traumatic events, such as a regression of previously learned skills, withdrawn behaviour, and separation difficulties (see Perrin, Smith, & Yule, 2000; Scheeringa, Zeanah, Drell, & Larrieu, 1995; Vogel & Vernberg, 1993). However, these symptoms currently are not included among the diagnostic criteria for PTSD. Symptom patterns vary greatly, but common reactions include intrusive thoughts, anxiety, depression, difficulty concentrating, psychosomatic disturbances, and sleep disorders (Martinez & Richters, 1993).

#### **1.2.4 Rates of PTSD**

Rates of PTSD identified in survivors of traumatic events vary considerably. Some studies examining children immediately after natural disaster have found that PTSD occurs in anywhere from 3% to 87% of the children (Garrison *et al.*, 1995; Shannon *et al.*, 1994; Shaw *et al.*, 1995). PTSD prevalence of 14 - 50% has been found in various studies of survivor populations in both Third World and Western settings (Summerfield, 1997). Rates of PTSD identified in child and adult survivors of violence and disasters vary widely. For example, estimates range from 2% after a natural disaster (tornado), to 28% after an episode of terrorism (mass shooting), and 29% after a plane crash (Smith *et al.*, 1993). Moreover, recent data from

national co-morbidity surveys indicate PTSD prevalence rates are 5% and 10% respectively among American men and women (Kessler *et al.*, 1996). Generally speaking, rates of PTSD following extreme violence are quite high. For example, rates of PTSD after being kidnapped, witnessing the murder of a parent, or experiencing domestic violence situations have ranged from 95% to 100% (Horowitz *et al.* 1995; Kinzie *et al.* 1986; Pynoos *et al.* 1987; Terr, 1981).

### **1.2.5 Chronic traumatic experiences**

Chronic trauma means that traumatic events (e.g. combat experiences, physical injury, direct threats to life, domestic violence) occur several times over an extended period of time, and that these traumas are often multiple, severe, and recurring (Kinzie, 2001a, Kaysen *et al.*, 2003). Research suggests that individuals who experience chronic trauma have lower rates of recovery from PTSD (Famularo *et al.*, 1996; Green, 1985; Terr, 1991). Furthermore, longer periods of trauma exposure have been associated with increased PTSD symptomatology (Weaver & Clum, 1995). Chronic traumatization may be psychologically damaging, not just because of the specific and repeated traumatic incidents, but also because of the effects of living in a state of constant danger (Baum *et al.*, 1990; Herman, 1992b; Smith *et al.*, 1999).

The long-term effects of war depend on a complex interaction of different factors that include demographic considerations and the specific nature of the individual's war experiences (Kuterovac-Jagodic, 2000). In general, research on combat veterans and other survivors of traumatic experiences found that more time spent in potential danger can lead to more severe symptoms of PTSD both in childhood and adulthood (e.g., Norris *et al.*, 2003; Kaysen *et al.*, 2003; Eth, 2001).

Given the apparent relationship between chronicity of exposure to traumatic events and PTSD symptoms, it is important to examine carefully the duration of chronic traumatization, and thereby better understand its relationship to PTSD symptomatology (Kaysen *et al.*, 2003). Regarding children who are exposed to war, ethnic cleansing, political oppression, concomitant interpersonal violence, and flight from their homes, it is not currently known whether the long-lasting impact of these events can be more likened to single-episode traumas (which are associated with a greater degree of recovery) or child maltreatment involving physical and sexual abuse (which is associated with more complex, diverse, and enduring

outcomes) (Eth, 2001).

In recent years, several investigators have begun to examine whether it is the totality of exposure to war-related stress that is harmful to children, or whether their responses depend upon the nature, type, and duration of exposure to stress (Athey & Ahearn, 1991; Goldstein, Wampler, & Wise, 1997; Jensen & Shaw, 1993). This field of study represents an important research direction because children who grow up in war zones are typically exposed to multiple stressors including physical harm, intimidation or other forms of psychological trauma, loss, deprivation, malnutrition, bereavement, or abuse. Although stress is common to any wartime situation, the degree and nature in which it is experienced varies greatly in each context (Berman, 2001).

In one study, when the duration of trauma lasted more than one year, 73% of the children showed PTSD symptoms, but when the duration of trauma was less than one year, only 37% of the children had PTSD symptoms (Wolfe *et al.*, 1994). So, the length of time one has lived in a disaster community can be an important contributor to the degree of distress experienced when disaster strikes (Fullerton *et al.*, 1992). Research indicated that the long-term effects of trauma lead to an increase in the symptoms of PTSD (e.g., Berman, 2001; Yule, 2001; Qouta & El-Sarraj, 2004; Melhem *et al.*, 2004).

For children living with war, there are some context-specific characteristics of the current situation in Palestine that may explain the children's high level of PTSD. The long duration of the conflict is more significant than a single disaster for Palestinians, as the children are exposed to on-going traumatic experiences that result in the continuation of the stress for long periods. This does severe damage to the child's psyche, and increases the rates of PTSD (Qouta & El-Sarraj, 2004).

### **1.3 The impact of traumatic experiences on children and adolescents**

#### **1.3.1 Introduction**

Warfare, political violence, and armed conflicts have negative influences on several aspects of life (e.g. physical, emotional, educational, social, natural development), particularly on children. Generations of children are being killed and seriously injured, both physically and emotionally, as a result of armed conflict (Hutchison, 2005). Army occupation or community violence is often a chronic stressor that is generally concentrated in inner cities and can affect psychological, physical, behavioural, cognitive, social, and academic functioning (Kupersmidt *et al.*, 2002). Also, these effects have increased during the last decades. Living in war-torn areas is a reality that many people face throughout the world (Qouta & El-Sarraj, 2004).

Studies on the effect of war on civilians began after the Second World War, whilst recent studies have focused on contemporary conflicts in the Middle East, South Africa, Ireland and Bosnia, as well as the effect of urban violence targeted at American children. In the past years, approximately two million children have been killed in war zones, and six million injured or permanently disabled (Bellamy, 2002; UNICEF, 1996). Of war-exposed survivors, one million children have been orphaned (Bellamy, 2002; Plunkett & Southall, 1998) and 20 million displaced to refugee or internally displaced person's camps (Machel, 2001). Armed conflict affecting civilian populations became increasingly common towards the end of the twentieth century (Swenson & Klingman, 1993).

There is a long history of descriptive reports of children's psychological reactions to wartime stress in many regions including Cambodia (Realmuto *et al.*, 1992; Sack, *et al.*, 1993; Sack *et al.*, 1995a), Afghanistan (Mghir, Freed, Raskin, & Katon, 1995), South Africa (Dawes *et al.*, 1989, 1990), Bosnia-Herzegovina (Smith *et al.*, 2001), Balkans (Ajdukovic, 1998; Zivcic, 1993), Kuwait (Nader *et al.*, 1993), Palestine (Qouta & El-Sarraj, 2004; Hawajri, 2003; El-Khosondar, 2004), Israel (Rosenbaum & Ronen, 1992; Solomon, 1994), Lebanon (Sibai & Sen, 2000), and Iraq (Ahmad *et al.*, 2000). Research showed that children living in war zones are at high risk of developing types of psychopathology, predominantly Post-Traumatic Stress Disorders (PTSD) (Thabet *et al.* 2004; Husain, 2005; Mohlen *et al.*, 2005).

Research from former Yugoslavia and from the Middle East has documented that high levels of exposure to war trauma in children is associated with higher levels of post-traumatic stress disorders PTSD (Bradbum, 1991; Nader *et al.*, 1993).

Some pain cannot be alleviated with kind words of encouragement and a hug, nor successfully covered with a bandage. The emotional wounds are far too deep, the memories much too unbearable, and the psychological scar ever visible. This is the kind of pain that can cause ‘big kids’ to regress to a state of utter helplessness and uncertainty: a pain that can cause a sociable, self-assured adolescent to become socially withdrawn and uncommunicative. This type of pain can be brought on only by a traumatic incident that could very well be the devastating effects of the tragedy of war or the dangerous path of gunfire (Hutchison, 2005).

Violent attacks may lead to the loss of a home, separation from loved ones, relocation, parental unemployment, family disruption, to fears of contamination, disrupted school activities, forced inactivity, and a loss of community and social support (Shaw, 2000; Pfefferbaum, 1997). Approximately 20% of individuals exposed to a significant traumatic event will develop PTSD (Breslau *et al.*, 1998, 1999b), and children may be at even higher risk (Breslau *et al.*, 1999a).

Children who lost an immediate family member, friend, or relative were more likely to report immediate symptoms of PTSD than children who had not lost a loved one (Pfefferbaum *et al.*, 1999). Children and young adults with previous exposure to violence are at greater risk of developing long-term emotional problems after exposure to a traumatic event (Garbarino *et al.*, 1991; Duncan *et al.*, 1996; Boney-McCoy & Finkelhor, 1995).

Trauma and response to that trauma can disrupt a child’s development (Schwarz & Kowalski, 1991), eventual adaptation, and personality (Nader *et al.*, 1990; Perry, 1994). If there are clear effects of conflict on combatants, how will the effects be on the children who are living with war? In reality, many fundamental human rights are denied to millions of children growing up in war zones throughout the world. Even after hostilities end, or alternatively—the children obtain asylum in another country—long-term physical and emotional traumas haunt them. Many children and young people living with war have often directly or indirectly encountered trauma before and during escape from their homeland. They have also witnessed the torture

or murder of relatives. Multiple losses are defining features of the refugees' experiences as they are uprooted from their family, friends, culture, and everything that is familiar to them (Berman, 1996).

### **1.3.2 Children living with war and violence**

In many recent armed conflicts the majority of the victims have not been soldiers, but women and children (UNICEF, 1986; Nixom, 1990; Garbarino *et al.*, 1990). Living with war or combat are significant risk factors for children developing PTSD (Bramsen, Dirkzwager, & Van der Ploeg, 2000; Kulka *et al.*, 1990).

Children who are victims of war trauma include not just those who are injured or killed in the violence, but also those who are survivors, relatives, witnesses and bystanders. Not surprisingly, many children across the globe suffer from post-traumatic stress symptoms associated with their experiences of war traumas (Hutchison, 2005).

A vast amount of research showed that children living in war zones are at high risk of developing types of psychopathology, predominantly post-traumatic stress disorders: (Thabet *et al.* 2004; Husain, 2005; Mohlen *et al.*, 2005; Vostanis, 2004).

Kuterovac *et al.* (1994) indicated that displaced children were significantly more exposed to destruction of home and school and to acts of violence and loss of family members than were non-displaced children. Other studies showed that survivors suffered from an increase in distress-related symptoms and a decrease in life satisfaction in the decades after the war (Cohen *et al.*, 2001; Carmil & Carel, 1986; Eaton *et al.*, 1982).

There is some indication that a threat to survival is especially important for the development of post-traumatic symptoms in both adults (Fontana, Rosenheck, & Brett, 1992) and children (Carlson & Rosser-Hogan, 1994). Rummens and Seat (2004) suggested that explicit war coverage, negative media portrayal, ethnic discrimination, and parental distress appear to amplify pre-and post-migration trauma. These produced more severe mental health effects than these children and youths might otherwise have experienced. They indicated that 26.3% of the children and youths interviewed met diagnostic criteria for the likelihood of PTSD as a direct result of the Kosovo conflict. This condition is characterized by intrusive memories of

the past, sleep disturbances, nightmares, hyper-arousal, affective numbing and emotional withdrawal.

Epidemiological studies demonstrate that PTSD is a chronic problem for many people. Studies of chronicity suggest that 33-47% of people with PTSD report experiencing symptoms more than a year after the traumatic event (Davidson *et al.*, 1991 & Helzer *et al.*, 1987). Children in Sierra Leone, Sudan, and northern Uganda, for example, were forced to witness their family members being tortured and murdered, and those in Chechnya endured repeated bombings and explosions (UNICEF, 2000). Many of the children's growth were stunted by the severe trauma they had endured, and large numbers suffered from PTSD and other trauma-related disorders (Husain, 2005).

In many political conflicts and wars, children who are exposed to violence also suffer from additional traumas and adversities. They lose their homes, their possessions, their friends, and frequently their parents, siblings, or other kin. For most children, the loss of a parent is an overwhelming event, and normal grieving and effective coping - difficult for any child whose parent or sibling has died - are particularly problematic for war and refugee children (Boothby, 1994). During and after a war, a 'culture of fear' may interact with the chronic sequential war traumas and the daily difficulties, such as living in a devastated area, a refugee camp, or a repressive environment. This may also contribute to a continuous traumatic stress syndrome, comparable to the ICD-10 category of complex PTSD and the enduring personality change after catastrophic experience. These diagnoses show a striking similarity with the above mentioned core features of the culture of fear (De Jong, 2002).

### **1.3.3 The physical effects of trauma**

People can also have physical reactions to trauma such as trouble falling or staying asleep, feeling agitated and constantly on the lookout for danger, getting very startled by loud noises or something or someone coming up on them from behind when they do not expect it. In many parts of the world personal distress is expressed as bodily pains and problems (Swartz, 1998). Many studies found that physical health problems in childhood and adolescence are related to traumatic experiences (e.g., somatization symptoms, sleep disturbance, headaches, stomach-aches, dizziness, breathing difficulties, stomach upsets, and other physical ailments)

(Newman, 2002; Bramsen *et al.*, 2000; Wayment, 2004; McCarroll *et al.*, 2002).

Psycho-physiological changes associated with PTSD include hyper-arousal of the sympathetic nervous system, increased sensitivity, and augmentation of the acoustic-startle eye blink reflex, a reduced pattern of auditory evoked cortical potentials, and sleep abnormalities (Friedman, Charney, & Deutch, 1995). Symptoms include feeling shaky and sweaty, experiencing heavy heart pounding, or having trouble breathing (APA, 1994).

Some studies (Shaw *et al.*, 1995; Giaconia *et al.*, 1995; Scheeringa and Zeanah, 1995) report that traumatized school-age children show physical complaints to traumatic events (e.g., headaches, stomach aches, dizziness, difficulty breathing, and other physical ailments). There appears to be no medical explanation for their symptoms, but they are nevertheless 'real' and are usually caused by extreme stress. In addition, they also report that adolescents who have been traumatized complain of somatic symptoms (e.g., headaches, dizziness, breathing difficulties, stomach upsets, and other somatic complaints). Furthermore, significant physical and medical problems in childhood, adolescence, and adulthood appear to be related to childhood trauma (Eth, 2001).

Similarly, the tendency to react to stressful situations with somatic complaints may actually be the result of, or concomitant with an avoidant coping style (Sharpe *et al.*, 1995). Perhaps some people struggle to face their emotional problems directly, and this may lead to them developing somatic symptoms and PTSD. Yet another possibility is that some people may have specific physical vulnerabilities that put them at risk for developing certain somatic symptoms in response to stress (Bramsen *et al.*, 2000).

Some researchers see somatic complaints as stress-driven physiological responses, others emphasise that they are the only available expressions of the collective distress of powerless and persecuted people denied a social validation of their suffering and humanity (Farias, 1991). Solomon (1992) found increased somatic and psychiatric distress among wives of veterans of the Lebanon war suffering from combat stress reactions and PTSD.

Hadi (1999) examined 144 children, 144 teachers, and 140 parents who had contact with children that were exposed to violence during the Gulf War. Those children showed symptoms

of anxiety, depression, and somatic complaints consistent with PTSD. Mollica *et al.*, (1997) examined the effect of war trauma on the functional health and mental health status of Cambodian adolescents living in a refugee camp on the Thai-Cambodian border. One adult (aged 18+ yrs) each from 1,000 households, and 182 adolescents (aged 12-13 yrs), along with one parent, were interviewed. Results show that parents and adolescents reported the latter as having experienced high levels of cumulative trauma, especially lack of food, water, and shelter. The most commonly reported symptoms were somatic complaints, social withdrawal, attention problems, anxiety, and depression. The dose-effect relationship between cumulative trauma and symptoms was strong.

Geltman and Stover (1997) found that children who were internally displaced or living in refugee camps in Zaire, as a genocide trauma led to severe physical and psychological damage. Higher levels of somatic symptoms were most likely to be found in children whose families experienced a large number of disruptions after a death. During the second year of bereavement, 17% of the children continued to experience frequent headaches. Headaches were more frequent for girls, and for those children who reported good relationships with the lost parent before the death and were highly connected afterward. These somatic symptoms can be problematic for the children but they do not necessarily result in mental illness (Worden, 1996).

Llabre and Hadi (1994) examined 191 Kuwaiti children (aged 8-12 yrs) who witnessed traumatic events of the Gulf War. A significant increase was found in the extent of the health complaints reported by the children from before to after the crisis: 46% of the sample reported more frequent illnesses or somatic symptoms after the crisis than before. Most common are variously described headaches, non-specific bodily pains, chest or abdominal discomfort, dizziness, weakness and fatigability as result of conflict (Summerfield, 1997).

#### **1.3.4 The psychological effects of trauma**

The long-term psychological aspects of war traumatization are much more difficult to recognize than their physical effects (Butollo, 1996). Many researchers argue that the effects of trauma are so severe that they reverberate across the life-span, creating a host of lifelong psychological problems (Bowlby, 1980; Brown & Harris, 1978; Janoff-Bulman, 1992).

Children and adolescents exposed to trauma can suffer major adverse psychological effects including not only post-traumatic stress disorders, but also other psychological disorders.

Many studies have shown different psychological effects of traumatic experiences on children and adolescents such as a low sense of self-efficacy and self-esteem (Worden, 1996; Saigh *et al.*, 1995), anxiety or depressive symptoms (Chimienti *et al.* 1991), fear (Foa *et al.*, 1999); horror, anger, sadness, humiliation, and guilt (Foa *et al.*, 1999); losing childhood (Boothby, Upton, & Sultan, 1992), behavioural and emotional difficulties (Giaconia *et al.*, 1995), more threatening dreams (Punamaki, 1997), psychological disturbances (Baker, 1990; Jensen, 1994; Garbarino & Kostelny, 1993; Moro *et al.*, 1998), depression (Clarke *et al.*, 1993), cognitive distortions or lapses in memory (Mc Leer *et al.*, 1998; behavioural disturbances (Vila *et al.*, 1999), and regression (Nader, 2001).

There is a relationship between depression and traumatic experiences (e.g., Mollica, McInnes, Poole & Tor, 1998; Pfefferbaum, 1997). A more recent study with refugee Cambodian adolescents in Thailand found an obvious relationship between trauma and both PTSD and depressive scores (Mollica, McInnes, Poole & Tor, 1998). There are also negative cognitive and behavioural effects to be found among traumatized children. The cognitive effects of trauma represent some of the most widespread symptoms in children exposed to trauma. In children, cognitive changes involve recurrent and intrusive recollections (Cuffe *et al.*, 1998; Terr, 1991), and cognitive distortions or lapses in memory (Mc Leer *et al.* 1998). Vila *et al.* (1999) also found that a high percentage of children exposed to trauma reported behavioural disturbances.

Cognitive and emotional functioning are affected by the development of PTSD. Acosta (2000) analyzed the verbal and non-verbal memory functions of twenty inpatient adolescents diagnosed with PTSD compared to twenty students randomly selected from a nearby school district. Despite a small sample size, results indicated that those students with PTSD performed significantly more poorly than their controls on tasks requiring delayed recall, free recall, sequential and associative recall. Memory bias was also studied.

Jensen and Shaw (1993) found that significant exposure to wartime trauma seems likely to overwhelm most children's psychological defences. Studies of children's reactions to

kidnapping (Terr, 1983), sniper killing (Nader *et al.*, 1990; Pynoos *et al.*, 1987), and hurricane (Lonigan *et al.*, 1991) have demonstrated that the degree of emotional reaction to trauma is related to the proximity of the disaster.

Giaconia *et al.* (1995) examined 384 18-year-old adolescents. Their findings indicated that by age 18, more than 40% of the participants' experienced at least one traumatic event. Results of the comprehensive assessment of these students found widespread difficulties to include behavioural and emotional difficulties, interpersonal problems, academic failure, suicidal behaviour, and health problems. Saigh *et al.* (1995) found in a comparison of traumatized versus non-traumatized adolescents, that those who experienced PTSD had significantly lower ratings of their self-efficacy. These authors attribute these lower self-efficacy scores to PTSD-related difficulties and interpersonal problems.

In another study, the trauma group reported more threatening dreams than the comparison group and, within the trauma group, children who were repeatedly exposed to traumatic events recalled more threatening dreams than those exposed to fewer traumas (Punamaki, 1997). The result for the Gaza children confirms earlier research showing that elevated dream recall accompanied ongoing and acute trauma (Brown & Donderi, 1986; Cartwright & Lloyd, 1994). Research findings indicate that children who have been exposed to the violence, deprivations, and dangers of war are at high risk of experiencing prolonged psychological disturbances, compromised academic performance, and various mental health problems (Jensen, 1994; Moro *et al.*, 1998).

### **1.3.5 The social effects of trauma**

Traumatic experiences can have an affect on both psychological and social aspects of children and adolescents' lives. There are psycho-social effects of war and its aftermath on children and adolescents which have been documented in a variety of geographic regions and cultural settings, including in the former Yugoslavia during and after the war (e.g., Goldstein *et al.*, 1997; Kuterovac *et al.*, 1994; Weine *et al.*, 1995).

Many studies found psycho-social effects on traumatized children and adolescents, such as problems at home or school environment (Thabet & Vostanis, 2000), adjustment difficulties (Rummens & Seat, 2004), increased cigarette use, and poorer school performance (Lipschitz

*et al.*, 2000; Schwab-Stone *et al.*, 1999; Acosta,2000), social disruption (Palinkas *et al.*,2004), behavioural disorders (Glodich, 1998), poorer memory (Acosta,2000; McNally, 2003).

Trauma responses, including those related to war, refuse to remain buried, and appear to impair the ability of children to achieve their social-emotional development tasks (Herman, 1992a; Green *et al.*, 1991). In addition, children living in conditions of political violence and war are forced take responsibility much earlier and mature therefore earlier resulting in the loss of their childhood (Boothby, Upton, & Sultan, 1992).

#### **1.3.5.1 Effects of trauma on the family**

Parents, siblings, grandparents, members of extended family, and people in the child's social network often are the hidden victims of a child's trauma (Monahon, 1993). Some members of the family might be directly affected by the traumatic event, whilst other family members might be traumatized vicariously when they learn that one family member(s) has experienced an emotional traumatic event (Catherall, 2004). Siblings of traumatized children may experience feelings of guilt, fear, anxiety, and (secondary) trauma symptoms similar to those of the traumatized child (Monahon, 1993). Applebaum and Burns (1991) found that children who had a sibling die unexpectedly (through accident or murder) were at risk of developing PTSD symptomatology.

The impact of trauma spreads in families. Other family members may develop their own trauma symptoms, the functioning of the entire family may be affected and, sometimes, the effects of traumatization are so powerful when the trauma occurred. This phenomenon of secondary traumatization has become a major source of interest among those who work with trauma and families (Catherall, 2004).

Children who lose a family member are not only losing a key component of their familial support network but are also faced with a significant source of distress. The literature has mainly focused on the loss of a parent, however additional studies investigated the emotional impact resulting from a loss of siblings and other family member. Parents reported that 73% of their children showed negative effects after the death of a parent or sibling. Actually, 47% of the parents reported that their children experienced extremely negative effects (Lehman *et al.*,

1989). The experience of families who suffer war-related deaths is heavily influenced by social attitudes about the war involvement (Walsh & McGoldrick, 2004).

Parents or other caregivers who suffer often have difficulties interacting with their children; for example, they may become less sensitive, less tolerant, and less able to feel and express love for their children. They may also be less able to maintain normal rules and boundaries for their children. Sometimes, they also become overprotective, irritable or violent (Field, 1995; Cairns, 1996; Kalantari *et al.*, 1993). Threats to caregivers, parents' own traumatic reactions and symptoms, increased anxiety, perceived rejecting or guilt, anxiety and parents' own history of psychiatric disorder have all been associated with children's increased symptoms (Deblinger & Heflin, 1996; Scheeringa & Zeanah, 2001).

#### **1.3.5.2 Effects of trauma on education**

PTSD has long lasting effects also on the educational success of students in school. Saigh, Mroueh & Bremner (1997) found that traumatized adolescents with PTSD had significantly lower scores on academic performance. Many studies showed the negative effects of traumatic experiences on academic performance for children and adolescents such as learning problems (Rossman, 1998), decline in school performance (Hutchison, 2005), decline in academic performance (Pasagic, 2000; Giaconia *et al.*, 1995), academic difficulties and aggressive behaviour (Worden, 1996). Also, Bosnian adolescents affected by the war reported increased problems with school dropout, poor academic performance, lack of preparation for future professional and family life, alcohol and drug abuse, and lack of confidence in social institutions (Pasagic, 2000).

Hadi (1999) found that children exposed to violence suffered severe trauma during the Gulf War. These children showed symptoms of anxiety, depression and somatic complaints consistent with PTSD. Behavioural problems in children are usually observed first by adults, such as parents and teachers. In the early months after their parent's death, a fifth of the children reported experiencing some type of learning difficulty in school. Boys, in general, were more likely to experience academic difficulties than girls in the early months after the death. Adolescent boys, in particular, were the most vulnerable group for learning problems. Anxiety was a strong correlate of learning difficulties at one year, along with uneasiness at the

dinner table, headaches, and sleep problems. Children doing poorly in school at this time also had lower self-esteem, less sense of self-empowerment, higher levels of aggressive behaviour, and were experiencing a larger number of changes in their daily lives (Worden, 1996).

Giaconia *et al.* (1995) found in their study that adolescents with PTSD had significantly lower high school grade point averages than those who were not traumatized. Once it is confirmed that the school is facing a major crisis, staff and pupils may feel shocked, numbed, and also feel a great pressure to talk. The head teacher and staff will face a number of decisions that will be informed by understanding these reactions and needs (Yule & Gold, 1997).

### **1.3.6 The impact of chronic traumatic experiences**

Longer periods of trauma exposure have been associated with increased PTSD symptomatology (Weaver & Clum, 1995). Chronic traumatization may be damaging, not just because of the specific and repeated traumatic incident but because of the effects of living in a state of constant danger (Baum *et al.*, 1990; Herman, 1992b; Smith *et al.*, 1999). The combat stress reaction (CSR) rates increased linearly with the number of prior war experiences: 57% after one war, 67% after two wars, and 83% after three wars (Solomon *et al.*, 1987).

Terr (1991) has proposed the existence of two types of childhood traumatic syndromes that reflect fundamental differences between children exposed to single traumatic events and those experiencing chronic, multiple traumas. The long-term effects of war depend on a complex interaction of different factors that include demographic considerations and the specific nature of the individual's war experiences (Kuterovac-Jagodic, 2000).

In general, results of the research on combat veterans and further traumatic experiences suggest that more time spent in potential danger can lead to higher levels of PTSD symptomatology in childhood and adulthood (e.g., Norris *et al.*, 2003; Kaysen *et al.*, 2003). Given the relationship between chronicity of exposure to traumatic events and PTSD symptoms, it is important to examine carefully the duration of chronic traumatization, and thereby better understand its relationship to PTSD symptomatology (Kaysen *et al.*, 2003).

Indeed, there are many different types of chronic traumatic stressors that are not the result of either social disadvantage or repeated physical or sexual abuse, for example, children who are exposed to war, ethnic cleansing, political oppression, concomitant interpersonal violence, and flight from their homes. It is not currently known whether the long-lasting impact of these events can be more likened to single-episode traumas (which are associated with a greater degree of recovery) or child maltreatment involving physical and sexual abuse (which is associated with the more complex, diverse, and enduring outcomes (Eth, 2001, pp. 117-158). Moreover, research suggests that individuals who experience chronic trauma have lower rates of recovery from PTSD (Famularo *et al.*, 1996; Green, 1985; Terr, 1991).

### **1.3.7 Summary & Comment**

Exposure to stress and occasional traumatic events are part of the normal life of a human being. Trauma comes from two main sources: natural disasters (e.g. earthquake, hurricane, volcano, flooding) and human action (e.g. violence, torture, war, sexual abuse, kidnapping) (APA, 1994; Hutchison, 2005; Resick, 2001). However, persistent traumatic events are not common experiences in most people's lives. Every trauma is a sudden and unexpected event which can lead to symptoms of PTSD or additional psycho-social problems (e.g., Resick, 2001; Friedman & Jaranson, 1994; APA, 1994; ICD-10, 1992), especially if the event is experienced every day or several times.

Over ten million children have been traumatized by war around the world (United Nations, 2000). In recent years, approximately two million children have been killed in war zones, and six million injured or permanently disabled (Bellamy, 2002; UNICEF, 1996). Research from former Yugoslavia and from the Middle East found that children who experienced high levels of exposure to war exhibited higher levels of PTSD (Bradbum, 1991; Nader *et al.*, 1993).

There are no standard responses to traumatic experiences. Some people when exposed to traumatic events, suffered from symptoms at the beginning that later disappeared, while others initially responded without problems to their displacement, but developed symptoms of stress later (De Jong, 2002). Reaction to trauma seems to depend on many factors such as a person's life experiences before the trauma, a person's own natural ability to cope with stress and the kinds of help and support a person gets from family, friends and professionals

immediately following the trauma (Dempsey, 2002; Punamaki, 1987; Williams, 1990). However, not all individuals with high levels of trauma exposure develop PTSD, which depends on the moderating factors (e.g., Dempsey, 2002; Joseph *et al.*, 1993).

Primary traumatic stress relates to exposure directly to the traumatic events such as violent personal assault, being kidnapped, being tortured or injured. In addition, the secondary traumatic stress relates to exposure indirectly to trauma such as witnessing or hearing about traumatic events experienced by others (Figley, 1983; APA., 1994).

PTSD was formally diagnosed by the American Psychiatry Association DSM-IV (APA) and the tenth edition of the International Classification of Diseases (ICD-10) which offers a much wider description of characteristic symptoms than DSM (APA, 1994; ICD-10; World Health Organization, 1992). Both systems agree that it is the re-experiencing symptoms that are the hallmark sign of PTSD and mark it out from most other psychopathology (Yule, Williams & Joseph, 1999). However, researchers have identified several similarities to symptoms of PTSD in DSM-IV, but these are not limited to war-related events (e.g., Nader, Pynoos, Fairbanks, Al-Ajeel, & Al-Asfour, 1993). Witnesses to severe violent events (e.g., domestic violence, suicide, homicide) tend to report increased symptomatology relative to non-witnesses (e.g., Nader, Pynoos, Fairbanks, & Frederick, 1990; Pynoos & Nader, 1990). However, researchers also found other predominantly child-specific responses to potentially traumatic events, such as a regression of previously learned skills, withdrawn behaviour, and separation difficulties (e.g., Perrin, Smith, & Yule, 2000; Scheeringa, Zeanah, Drell, & Larrieu, 1995; Vogel & Vernberg, 1993). Therefore, these symptoms currently are not included among the diagnostic criteria for PTSD.

The rate of PTSD after natural disaster occurs in anywhere from 3% to 87% of the children (Garrison *et al.*, 1995; Shannon *et al.*, 1994; Shaw *et al.*, 1995). However, the rates of PTSD after human-made trauma have ranged from 95% to 100% (e.g., Horowitz *et al.* 1995; Pynoos *et al.* 1987; Schwartz and Kowalski, 1991). Children living in war areas showed particularly high levels of PTSD symptoms, for example in Cambodia, South Africa, Croatia, Bosnia, Iraq, Iran, North Ireland, Lebanon, Palestine (e.g., Husain, 2005; Gannage, 2003, Mohlen *et al.*, 2005). However, based on the previous studies it appears that among victims of war and

persecution the PTSD rates vary from 15% to 50% (De Jong, 2002).

Chronic trauma means that traumatic events occur several times over an extended period and that these traumas are often multiple, severe, and recurring. Also, chronic traumatic experiences can lead to high PTSD (Kinzie, 2001a, Kaysen *et al.*, 2003; Norris *et al.*, 2003). In general, research found that more time spent in potential danger like exposure to war trauma, political conflicts, civil war and domestic violence, can lead to higher levels of PTSD symptoms in childhood and adulthood (e.g., Kaysen *et al.*, 2003; Eth, 2001; Norris *et al.*, 2003). Epidemiological studies of chronicity suggested that when people were exposed to chronic traumatic experiences for more than year, 33-47% suffered from PTSD symptoms (Davidson, 1991 & Helzer, 1987). However, the majority of war victims suffered from additional psychiatric disorders. Such a highly traumatized population usually confronted severe traumatic events such as war and combat experiences, torture, starvation (De Jong, 2002). For example, the Palestinian children who were exposed to chronic traumatic events showed high risk of suffering from PTSD in the Gaza Strip (e.g., Qouta & El-Sarraj, 2004; Thabet *et al.*, 2004; Kanninen *et al.*, 2003).

Children and adolescents who are exposed to traumatic events, particularly war trauma, can be affected in several ways: first, physically (e.g., stomach pains, breathing problems, headaches) (Newman, 2002; Resick, 2001; APA,1994), second, psychologically (e.g., low sense of self-esteem, anxiety or depressive symptoms, nightmares, regression) (Nader, 2001; Chimienti *et al.* 1991; Punamaki, 1997), third, socially (e.g., aggressive behaviour, social withdrawal, adjustment difficulties, poorer school performance, social disruption) (Palinkas *et al.*,2004; Rummens & Seat, 2004; McNally, 2003) and finally, educationally (e.g. low scores in academic performance, learning problems, academic difficulties and disruptive behaviour, bullying, a great reluctance to talk, weakness of concentration, lack of school adjustment, forgetfulness, truancy from school) (Hutchison, 2005; Pasagic, 2000; Yule & Gold, 1997).

In addition, parents and family members also might be affected badly from exposure to traumatic events. They may suffer from symptoms of PTSD, for example, and they may have difficulties interacting with their children, or may become less sensitive, less tolerant, and less able to feel and express love for their children. They may also be less able to maintain normal

rules and boundaries for their children. Sometimes, they also become overprotective, irritable or violent (Field, 1995; Cairns, 1996; Kalantari *et al.*, 1993). It is therefore very important that parents and teachers are aware of the normal responses of a child to a death in the family, as well as being able to detect the signs when a child has difficulties in coping with trauma or grief. It can be difficult to know how badly a child is affected by a frightening experience, especially younger children who cannot speak.